GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: July 21, 2001, 10:34:49 ; Search time 187.98 Seconds
(without alignments)
9382.784 Million cell updates/sec

Title: US-09-587-111-4
Perfect score: 2809
Sequence: 1 ggctagcctgtcctgacagg.....aaaaaaaaaaaaaaaaaaaa 2809

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 730101 seqs, 313950809 residues

Total number of hits satisfying chosen parameters: 1460202

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_0601:*
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22: /SIDS1/gcgdata/geneseq/geneseqn/NA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2809	100.0	2809	21	AAA30254	Human VR-2 coding
2	2766.8	98.5	2783	20	AAZ22829	Human vanilloid re
3	2720.6	96.9	2765	21	AAA14874	DNA encoding a van
4	2604.8	92.7	2779	19	AAV59691	Human secreted pro
5	2462.2	87.7	2469	22	AAC60297	Human vanilloid re
6	2385.2	84.9	2860	19	AAV59807	Human secreted pro
7	2378.4	84.7	2380	20	AAX87492	Human vanilloid re
8	2347.8	83.6	2351	20	AAZ07114	Human vanilloid re
9	2333.4	83.1	2348	20	AAZ07116	Human vanilloid re
10	1544.2	55.0	2736	20	AAX87478	Rat vanilloid rece
11	1544.2	55.0	2736	20	AAX19730	Rat VRRP-1 (VR2) c
12	1102.4	39.2	1794	21	AAA30256	Rat partial VR-2 c
13	1055	37.6	1489	21	AAA30255	Human VR-2 (altern
14	790.4	28.1	885	20	AAZ07115	Human vanilloid re
15	787.8	28.0	884	20	AAX87501	Human vanilloid re
16	787.8	28.0	884	20	AAX19741	Human VRRP-1 (VR2)
17	765.8	27.3	876	19	AAV59808	Human secreted pro
18	662.4	23.6	3909	21	AAA30253	Human VR-1 coding
19	662.4	23.6	4365	21	AAA29172	Human vanilloid re
20	660.8	23.5	2520	21	AAC66463	Human vanilloid re
21	660.8	23.5	2544	20	AAX87491	Human capsaicin re
22	660.8	23.5	3500	20	AAZ10065	cDNA encoding a hu
23	660.8	23.5	4803	20	AAZ10062	cDNA encoding a hu
24	660.8	23.5	4824	21	AAC66464	Human vanilloid re
25	660	23.5	4803	20	AAZ10063	cDNA encoding a pa
26	651.8	23.2	2880	20	AAX87477	Rat capsaicin rece
27	651.8	23.2	2880	20	AAX19729	Rat VR1 capsaicin
28	597.6	21.3	764	20	AAX87500	Human vanilloid re
29	597.6	21.3	764	20	AAX19740	Human VRRP-1 (VR2)
30	578	20.6	768	20	AAX87480	Human vanilloid re
31	578	20.6	768	20	AAX19732	Human VRRP-1 capsa
32	559	19.9	4118	21	AAA29173	Human vanilloid re
33	535.4	19.1	2845	20	AAX87502	Chicken capsaicin
34	535.4	19.1	2845	20	AAX19742	Chicken VR1 capsai
35	501.4	17.8	650	20	AAX87481	Human vanilloid re
36	501.4	17.8	650	20	AAX19733	Human VRRP-1 capsa
37	376.4	13.4	403	21	AAZ80276	Human colon cancer
38	346	12.3	350	20	AAX87499	Human vanilloid re
39	346	12.3	350	20	AAX19739	Human VRRP-1 (VR2)
40	234.6	8.4	273	20	AAX87479	Human vanilloid re
41	234.6	8.4	273	20	AAX19731	Human VRRP-1 capsa
42	162.4	5.8	450	20	AAX87498	Mouse capsaicin re
43	162.4	5.8	450	20	AAX19736	Mouse DNA sequence
44	160.8	5.7	471	20	AAX87497	Mouse capsaicin re
45	160.8	5.7	471	20	AAX19735	Mouse VR1 capsaici

ALIGNMENTS

RESULT 1
AAA30254
ID AAA30254 standard; cDNA; 2809 BP.
XX
AC AAA30254;
XX
DT 05-SEP-2000 (first entry)
XX
DE Human VR-2 coding sequence.
XX
KW VR-2; human; vanilloid receptor; nociceptor; pain signalling;
KW hyperalgesia; musculoskeletal disorder; neuropathic pain;
KW chromosome 17p11-12; gene therapy; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 361..2655
FT /*tag= a
FT /product= "VR-2"
FT /note= "This region is specifically claimed"
XX
PN WO200029577-A1.
XX
PD 25-MAY-2000.
XX
PF 12-NOV-1999; 99WO-US26701.
XX
PR 13-NOV-1998; 98US-0108322.
PR 28-DEC-1998; 98US-0114078.
PR 26-FEB-1999; 99US-0258633.
PR 19-OCT-1999; 99US-0421134.
XX
PA (MILL-) MILLENNIUM PHARM INC.

XX
PI Curtis RAJ;
XX
DR WPI; 2000-387790/33.
DR P-PSDB; AAY97358.
XX
PT New capsaicin/vanilloid receptor polynucleotides and polypeptides, used
PT to modulate pain signalling mechanisms -
XX
PS Claim 1; Fig 2; 183pp; English.
XX
CC The present sequence is the coding sequence for human
CC capsaicin/vanilloid receptor VR-2, which is involved in pain signalling.
CC The sequence was isolated by searching a heart library for genes
CC encoding novel receptors of the capsaicin/vanilloid family, and has been
CC shown to be located at chromosome 17p11-12. This region has been
CC associated with myasthenia gravis, Smith-Magenis syndrome, CORD5,
CC Cone-rod dystrophy, choroidal dystrophy, central areolar and retinal
CC cone dystrophy, and it is possible that the protein may be used to treat
CC or diagnose these disorders. In addition, the gene, protein and its
CC antibodies can be used to diagnose and treat hyperalgesia, inflammation,
CC infection, ischaemia, joint pain, tooth pain, headaches, pain associated
CC with surgery or neuropathic pain, possibly via the use of gene therapy.
XX
SQ Sequence 2809 BP; 601 A; 825 C; 798 G; 585 T; 0 other;

Query Match 100.0%; Score 2809; DB 21; Length 2809;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2809; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      61 ggtgggctgagggtgaccgagagaccagaacctgcttgctggagcttagtgctcagagct 120
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Qy     121 ggggagggaggttccgccgctcctctgctgtcagcgccggcagcccctcccggcttcact 180
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Qy     241 ctcagcctgcggggctccagtcaggccaacaccgacgcgcagctgggaggaagacaggac 300
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Qy     361 atgacctcaccctccagctctccagttttcaggttggagacattagatggaggccaagaa 420
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Qy     421 gatggctctgaggcggacagaggaaagctggattttgggagcgggctgcctcccatggag 480
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Qy     481 tcacagttccagggcgaggaccggaaattcgcccctcagataagagtcaacctcaactac 540
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Qy     601 aatgcggtctcccggggtgtccccgaggatctggctggacttccagagtacctgagcaag 660
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Qy     721 atgaaggctgtgctgaaccttaaggacggagtcaatgcctgcattctgccactgctgcag 780
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Qy     781 atcgacagggactctggcaatcctcagcccctggtaaatgcccagtgcacagatgactat 840
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Qy     841 taccgaggccacagcgctctgcacatcgccattgagaagaggagtctgcagtgtgtgaag 900
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Db   2761 actaactcaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa 2809
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```
RESULT   2
AAZ22829
ID   AAZ22829 standard; cDNA; 2783 BP.
XX
AC   AAZ22829;
XX
DT   06-DEC-1999  (first entry)
XX
DE   Human vanilloid receptor-like cation channel (hVRCC) cDNA.
XX
KW   Vanilloid; capsaicin; neuron; selective; calcium; cation; receptor; pain;
KW   inflammation; brain disease; cancer; autoimmune disorder; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
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FT   CDS             361..2652
FT                   /*tag= b
FT                   /product= "Human vanilloid receptor-like cation channel"
FT   allele          replace (374, T)
FT                   /*tag= e
FT   allele          replace (750, G)
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FT   allele          replace (787, C)
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PD   16-SEP-1999.
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PF   10-MAR-1999;   99WO-EP01550.
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PR   11-MAR-1998;   98EP-0400565.
XX
PA   (SNFI ) SANOFI-SYNTHELABO.
XX
PI   Partiseti M,  Renard S;
XX
DR   WPI; 1999-571722/48.
DR   P-PSDB; AAY42308.
XX
PT   New receptor-like channel polypeptide and polynucleotide useful for
PT   prevention and treatment of cancer, autoimmune disease, brain disease
PT   and ulcers  -
XX
PS   Claim 5; Page 14; 50pp; English.
XX
CC   This sequence represents a human vanilloid receptor-like cation channel
CC   (hVRCC) cDNA. This channel is activated by vanilloids such as capsaicin
CC   and resiniferatoxin, and is expressed in a variety of tissues,
CC   particularly in nervous tissue such as the amygdala, substantia nigra,
CC   thalamus, dorsal root ganglia and spinal cord. Vanilloids are natural
CC   compounds which are known to trigger cation permeability in the
CC   peripheral neurons involved in transmission of noxious stimuli (e.g.,
CC   mechanical, chemical or thermal). A recently discovered rat
CC   vanilloid-gated cation channel, which is highly expressed in dorsal root
CC   ganglia, has six putative transmembrane domains, giving it significant
CC   structural homology with "store-operated" calcium channels, and is highly
CC   selective for calcium ions. hVRCC and nucleotides encoding it can be used
CC   in prevention, diagnosis or therapy of disorders that may be associated
CC   with an excess or deficiency of hVRCC. Disorders detected or treated
CC   using hVRCC proteins, nucleotides or antagonists include chronic
CC   inflammation, acute and chronic pain, brain diseases, abnormal
CC   proliferation and cancer, ulcers, autoimmune diseases, control of viscera
CC   innervated by the dorsal root ganglia neurons, to mimic or antagonise
CC   effect of endogenous neurotransmitters and hormones, and to inhibit graft
```

```
CC   rejection by promoting immunosuppression. Nucleotide sequences encoding
CC   hVRCC are also useful for chromosome localisation.
XX
SQ   Sequence 2783 BP; 578 A; 824 C; 796 G; 585 T; 0 other;


  Query Match             98.5%;  Score 2766.8;  DB 20;  Length 2783;
  Best Local Similarity   99.8%;  Pred. No. 0;
  Matches 2781;  Conservative    0;  Mismatches    2;  Indels    3;  Gaps    1;

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Qy     121 ggggagggaggttccgccgctcctctgctgtcagcgccggcagcccctcccggcttcact 180
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Qy     181 tcctcccgcagcccctgctactgagaagctccgggatcccagcagccgccacgccctggc 240
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Qy     241 ctcagcctgcggggctccagtcaggccaacaccgacgcgcagctgggaggaagacaggac 300
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Qy     301 ccttgacatctccatctgcacagaggtcctggctggaccgagcagcctcctcctcctagg 360
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Qy    1561 tacatgttcatcttcaccgctgttgcctaccatcagcctaccctgaagaagcaggccgcc 1620
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RESULT   3
AAA14874
ID   AAA14874 standard; DNA; 2765 BP.
XX
AC   AAA14874;
XX
DT   08-AUG-2000  (first entry)
XX
DE   DNA encoding a vanilloid receptor-like (VR-L) protein.
XX
KW   Cation channel protein; vanilloid receptor-like 1 protein; VR-L;
KW   noxious heat; pain; inflammation; tissue damage; nociception;
KW   gene therapy; sensory neuron; immune system; analgesic; immunomodulatory;
KW   neuromodulatory; ss.
XX
OS   Homo sapiens.
XX
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FT                   /product= "vanilloid receptor-like (VR-L) protein"
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XX
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XX
PI   Garcia R,  Wood JN,  England S;
XX
DR   WPI; 2000-317978/27.
DR   P-PSDB; AAY84834.
XX
PT   Novel non-selective cation channel protein and nucleotides useful as
PT   screening agents and in gene therapy of disorders associated with
PT   sensory neurons and leucocytes such as pain, autoimmune disorders and
PT   leukemia  -
XX
PS   Claim 5; Fig 3A; 55pp; English.
XX
CC   The present sequence encodes a non-selective cation channel protein,
CC   designated vanilloid receptor-like 1 (VR-L). The protein is obtained
CC   from human T lymphocytes. The VR-L protein is activated by noxious heat,
CC   and is not capsaicin sensitive. VR-L is expressed in sensory neurons,
CC   and is likely to play a role in mediating the pain and inflammation
CC   accompanying tissue damage (nociception). The VR-L polynucleotide is
CC   useful for influencing the electrophysiological and/or pharmacological
CC   properties of a cell, and is also useful in the gene therapy treatment
CC   of disorders associated with sensory neurons and/or cells of the immune
CC   system and also for the preparation of a medicament for use in gene
CC   therapy. The VR-L polynucleotides and polypeptides are useful for
CC   identifying a substance with ion-channel modulating activity (such as
CC   analgesics), or compounds which affect nociception, immunomodulatory
CC   agents, neuromodulatory agents.
XX
SQ   Sequence 2765 BP; 560 A; 821 C; 792 G; 589 T; 3 other;


  Query Match             96.9%;  Score 2720.6;  DB 21;  Length 2765;
  Best Local Similarity   99.2%;  Pred. No. 0;
  Matches 2743;  Conservative    0;  Mismatches   22;  Indels    1;  Gaps    1;

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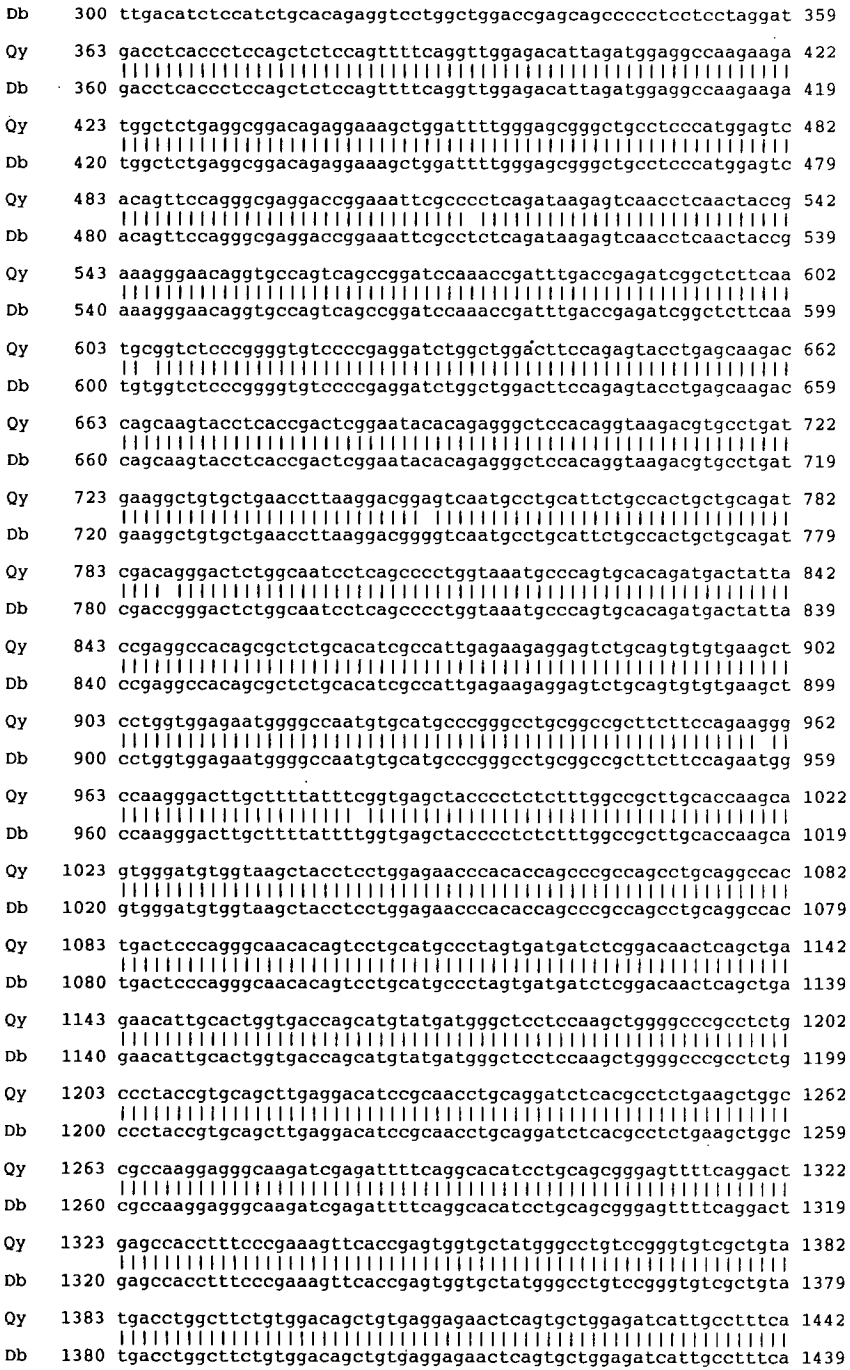
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RESULT 4
AAV59691
ID AAV59691 standard; DNA; 2779 BP.
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DT 19-JAN-1999 (first entry)
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DE Human secreted protein gene 181 clone HAFAU18.
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KW Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW developmental abnormality; foetal deficiency; blood; allergy; renal; ds;
KW immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
XX
OS Homo sapiens.
XX
PN WO9839448-A2.
XX
PD 11-SEP-1998.
XX
PF 06-MAR-1998; 98WO-US04493.
XX
PR 02-OCT-1997; 97US-0061060.
PR 07-MAR-1997; 97US-0038621.
PR 07-MAR-1997; 97US-0040161.
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PR 18-AUG-1997; 97US-0055724.
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PR 05-SEP-1997; 97US-0057650.
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PR 05-SEP-1997; 97US-0057761.

PR 12-SEP-1997; 97US-0058785.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Bednarik DP, Brewer LA, Carter KC, Duan R, Ebner R, Endress GA;
PI Feng P, Ferrie AM, Fischer CL, Florence KA, Greene JM, Hu JS;
PI Kyaw H, Lafleur DW, Li Y, Moore PA, Ni J, Olsen HS, Rosen CA;
PI Ruben SM, Shi Y, Soppet DR, Young PE, Yu GL, Zeng Z;
XX
DR WPI; 1998-506364/43.
DR P-PSDB; AAW74908.
XX
PT New isolated human genes and the secreted polypeptide(s) they encode
PT - useful for diagnosis and treatment of e.g. cancers, neurological
PT disorders, immune diseases, inflammation or blood disorders
XX
PS Claim 1; Page 420-421; 721pp; English.
XX
CC This sequence represents a nucleic acid molecule designated Gene 181
CC from the human cDNA clone HAFAU18 (deposited as clone ATCC 97904 and
CC ATCC 209050) which encodes a secreted human protein. The gene can be
CC used to generate fusion proteins by linking to the gene to a human
CC immunoglobulin Fc portion (e.g. AAV59502) for increasing the stability of
CC the fused protein as compared to the human protein only.
CC The invention relates to 186 novel genes and their fragments (nucleic
CC acid sequences: AAV59511-V59812; amino acid sequences AAW74731-W75026)
CC which are useful for preventing, treating or ameliorating medical
CC conditions e.g. by protein or gene therapy. Also, pathological
CC conditions can be diagnosed by determining the amount of the new
CC polypeptides in a sample or by determining the presence of mutations in
CC the new polynucleotides. Specific uses are described for each of the 186
CC polynucleotides, based on which tissues they are most highly expressed in
CC (see AAV59511 for described uses).
XX
SQ Sequence 2779 BP; 600 A; 806 C; 790 G; 569 T; 14 other;

Query Match 92.7%; Score 2604.8; DB 19; Length 2779;
Best Local Similarity 96.9%; Pred. No. 0;
Matches 2721; Conservative 11; Mismatches 6; Indels 71; Gaps 5;

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Qy   1921 ggcatctacagtgtcatgatccagaaggtcatcctgcgggacctgctgcgcttccttctg 1980
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Qy   2221 atggtgctgctgctgctgctggcctacgtgctgctcacctacatcctgctgctcaacatg 2280
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RESULT 5
AAC60297
ID AAC60297 standard; DNA; 2469 BP.
XX
AC AAC60297;
XX
DT 14-FEB-2001 (first entry)
XX
DE Human vanilloid receptor like receptor DNA.
XX
KW VR-L; vanilloid receptor-like receptor; pain; infection; allergy;
KW mechanical injury; lymphiod tissue; human; ds.
XX
OS Homo sapiens.
XX
PN GB2346882-A.
XX
PD 23-AUG-2000.
XX
PF 02-DEC-1999; 99GB-0028566.
XX
PR 08-DEC-1998; 98GB-0027016.
XX
PA (MERI) MERCK SHARP & DOHME LTD.
XX
PI Bonnert TP;
XX
DR WPI; 2001-064250/08.
DR P-PSDB; AAB35622.
XX
PT New polynucleotide encoding human vanilloid receptor-like receptor for
PT diagnosing and treating pain, infections, allergies, and cancers -
XX
PS Claim 2; Fig 1; 36pp; English.
XX
CC The present invention relates to the human vanilloid receptor-like
CC receptor. This receptor may be used for diagnosing or treating
CC conditions associated with altered vanilloid receptor-like (VR-L)
CC receptor expression. It may also be used to treat abnormal conditions
CC associated with pain. Conditions or diseases that can be diagnosed or
CC treated include viral, bacterial and fungal infections, allergic
CC responses, mechanical injury associated with trauma, hereditory
CC diseases, lymphoma or carcinoma, or other conditions which activate
CC the genes of the lymphoid tissues.
XX
SQ Sequence 2469 BP; 510 A; 724 C; 710 G; 525 T; 0 other;

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Qy    567 ggatccaaaccgatttgaccgagatcggctcttcaatgcggtctcccggggtgtccccga 626
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Qy    627 ggatctggctggacttccagagtacctgagcaagaccagcaagtacctcaccgactcgga 686
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RESULT 6
AAV59807
ID AAV59807 standard; DNA; 2860 BP.
XX
AC AAV59807;
XX
DT 19-JAN-1999 (first entry)
XX
DE Human secreted protein gene 181 clone HAFAU18.
XX
KW Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW developmental abnormality; foetal deficiency; blood; allergy; renal; ds;
KW immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
XX
OS Homo sapiens.
XX
PN WO9839448-A2.
XX
PD 11-SEP-1998.
XX
PF 06-MAR-1998; 98WO-US04493.
XX
PR 02-OCT-1997; 97US-0061060.
PR 07-MAR-1997; 97US-0038621.
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PR 22-AUG-1997; 97US-0056884.
PR 22-AUG-1997; 97US-0056886.
PR 22-AUG-1997; 97US-0056887.
PR 22-AUG-1997; 97US-0056888.
PR 22-AUG-1997; 97US-0056889.
PR 22-AUG-1997; 97US-0056892.
PR 22-AUG-1997; 97US-0056893.
PR 22-AUG-1997; 97US-0056894.
PR 22-AUG-1997; 97US-0056903.
PR 22-AUG-1997; 97US-0056908.
PR 22-AUG-1997; 97US-0056909.
PR 22-AUG-1997; 97US-0056910.
PR 22-AUG-1997; 97US-0056911.
PR 05-SEP-1997; 97US-0057650.
PR 05-SEP-1997; 97US-0057669.
PR 05-SEP-1997; 97US-0057761.
PR 12-SEP-1997; 97US-0058785.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Bednarik DP, Brewer LA, Carter KC, Duan R, Ebner R, Endress GA;
PI Feng P, Ferrie AM, Fischer CL, Florence KA, Greene JM, Hu JS;
PI Kyaw H, Lafleur DW, Li Y, Moore PA, Ni J, Olsen HS, Rosen CA;
PI Ruben SM, Shi Y, Soppet DR, Young PE, Yu GL, Zeng Z;

XX
DR WPI; 1998-506364/43.
DR P-PSDB; AAW75021.
XX
PT New isolated human genes and the secreted polypeptide(s) they encode
PT - useful for diagnosis and treatment of e.g. cancers, neurological
PT disorders, immune diseases, inflammation or blood disorders
XX
PS Claim 1; Page 538-539; 721pp; English.
XX
CC This sequence represents a nucleic acid molecule designated Gene 181
CC from the human cDNA clone HAFAU18 (deposited as clone ATCC 97904 and
CC ATCC 209050) which encodes a secreted human protein. The gene can be
CC used to generate fusion proteins by linking to the gene to a human
CC immunoglobulin Fc portion (e.g. AAV59502) for increasing the stability of
CC the fused protein as compared to the human protein only.
CC The invention relates to 186 novel genes and their fragments (nucleic
CC acid sequences: AAV59511-V59812; amino acid sequences AAW74731-W75026)
CC which are useful for preventing, treating or ameliorating medical
CC conditions e.g. by protein or gene therapy. Also, pathological
CC conditions can be diagnosed by determining the amount of the new
CC polypeptides in a sample or by determining the presence of mutations in
CC the new polynucleotides. Specific uses are described for each of the 186
CC polynucleotides, based on which tissues they are most highly expressed in
CC (see AAV59511 for described uses).
XX
SQ Sequence 2860 BP; 604 A; 834 C; 815 G; 587 T; 20 other;

Query Match 84.9%; Score 2385.2; DB 19; Length 2860;
Best Local Similarity 95.7%; Pred. No. 0;
Matches 2697; Conservative 5; Mismatches 29; Indels 87; Gaps 21;

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Qy      1 ggctagcctgtcctgacaggggagagttaagctcccgttctccaccgtgccggctggcca 60
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Qy     61 ggtgggctgagggtgaccgagagaccagaacctgcttgctggagcttagtgctcagagct 120
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Qy    121 ggggagggaggttccgccgctcctctgctgtcagcgccggcagcccctcccggcttcact 180
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Qy    181 tcctcccgcagcccctgctactgagaagctccgggatcccagcagccgccacgccctggc 240
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Qy    359 ggatgacctcaccctccagctctccagttttcaggttggagacattagatggaggccaag 418
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Qy    419 aagatggctctgaggcggacagaggaaagctggattttgggagcgggctgcctcccatgg 478
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Qy    479 agtcacagttccagggcgaggaccggaaattcgcccc-tcagataagagtcaacct-caa 536
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Qy    537 ctaccgaaagggaacaggtgccagtcagccggatccaaaccgatttgaccgagatcggct 596
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Qy    597 cttcaatgcggtctcccggggtgtccccgaggatctggctggacttccagagtacctgag 656
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy    657 caagaccagcaagtacctcaccgact--cggaatacacagagggctccacaggtaagacg 714
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Qy    715 tgcctgatgaaggctgtgctg-aaccttaaggacggagtcaatgcctgcattctgccact 773
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Qy    774 gctgcagatcgacagggactctggcaatcctcagcccctggtaaatgcccagtgcacaga 833
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Qy    834 tgactattaccgaggccacagcgctctgcacatcgccattgag-aagaggagtctgcagt 892
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Qy   1311 gttttcaggactgagccacctttcccgaaagttcaccgagtggtgctatgggcctgtccg 1370
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Qy   1371 ggtgtcgctgtatgacctggcttctgtggacagctgtgaggagaactcagtgctggagat 1430
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Qy   1431 cattgcctttcattgcaagagcccgcaccgacaccgaatggtcgttttggagcccctgaa 1490
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Qy   1491 caaactgctgcaggcgaaatgggatctgctcatccccaagttcttcttaaacttcctgtg 1550
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Qy   1611 gcaggccgcccctcacctgaaagcggaggttggaaactccatgctgctgacgggccacat 1670
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Qy   1671 ccttatcctgctaggggggatctacctcctcgt-gggccagctgtggtacttctggcggc 1729
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Db   1977 tggcgttccagcacacaggc---------------------------------------- 1996

Qy   1964 tgctgcgcttccttctgatctacttagtcttccttttcggcttcgctgtagccctggtga 2023
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Db   1997 -------------------------agtctacagtttcatgwtccctgaagccctggtga 2031

Qy   2024 gcctgagccaggaggcttggcgccccgaagctcctacaggccccaatgccacagagtcag 2083
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Qy   2084 tgcagcccatggagggacaggaggacgagggcaacggggcccagtacaggggtatcctgg 2143
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Qy   2384 attggtggtgcaggaagaagcagcgggcaggtgtgatgctgaccgttggcactaag-cca 2442
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Qy   2443 gatggcagcccggatgagcgctggtgcttcagggtggaggaggtgaactgggcttcat-g 2501
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Qy   2502 ggagcagacgctgcctacgctgtgtgaggacccgtcaggggcaggtgtccctcgaactct 2561
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Qy   2562 cgagaaccctgtcctggcttcccctcccaaggaggatgaggatggtgcctctgaggaaaa 2621
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Qy   2622 ctatgtgcccgtccagctcctccagtccaactgatggcccagatgcagcaggaggccaga 2681
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Qy   2742 gtggcaaatatatattttcactaactcaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa 2799
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Db   2750 gtggcaaatatatattttcactaactcaaaaaaaaaaaaaaaaaaaaaaaaaaaaavga 2807


RESULT   7
AAX87492
ID   AAX87492 standard; cDNA; 2380 BP.
XX
AC   AAX87492;
XX
DT   08-OCT-1999  (first entry)
XX
DE   Human vanilloid receptor-related polypeptide 1 (VRRP-1) cDNA.
XX
KW   Vanilloid receptor-related polypeptide 1; VRRP-1; VR2;
KW   capsaicin receptor; VR1; human; vanilloid; analgesic; pain;
KW   inflammation; therapy; diagnosis; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             19..2316
FT                   /*tag=  a
XX
PN   WO9937675-A1.
XX
PD   29-JUL-1999.
XX
PF   22-JAN-1999;   99WO-US01418.
XX
PR   22-JAN-1998;   98US-0072151.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Brake AJ,  Caterina M,  Julius DJ;
XX
DR   WPI; 1999-469113/39.
DR   P-PSDB; AAY06559.
XX
PT   New isolated capsaicin receptor polypeptide and related nucleic acid
PT   - useful for detecting vanilloid compounds, identifying modulators,
PT   and in diagnosis or treatment of e.g. pain and inflammation
XX
PS   Claim 8; Page 107-110; 120pp; English.
XX
CC   This is the nucleotide sequence of cDNA coding for human vanilloid
CC   receptor-related polypeptide 1 (VRRP-1 or VR2).  The cDNA was
CC   isolated from a CCRF-CEM cell cDNA.  VRRP-1 (AAY06559) is an example
CC   of a capsaicin receptor-related polypeptide of the invention.  It
CC   is not activated by capsaicin or heat, but may interact with the
CC   novel capsaicin receptor VR1 (see AAY06558).  The invention provides
CC   vanilloid receptor polypeptides and polynucleotides, including
CC   capsaicin receptor-related polypeptides and polynucleotides, as well
CC   as expression vectors, host cells and transgenic animals.  It also
CC   provides a method of using such receptors to identify vanilloid
CC   compounds in natural products or to screen candidate compounds that
CC   modulate capsaicin receptor function for use as analgesics (vanilloid
CC   analogues, therapeutic antibodies, antisense oligonucleotides,
CC   capsaicin receptor-encoding polynucleotides for gene therapy),
CC   flavour-enhancing agents, etc.  Capsaicin receptor-related
CC   polypeptides and specific antibodies can also be used for the
CC   diagnosis and treatment of human disease and pain.  Polynucleotides
CC   can be used as probes to determine the structure, function, location
CC   and expression of capsaicin receptor, receptor subtypes and capsaicin
CC   receptor-related polypeptides in mammals (including humans) and to
CC   investigate associations between disease states or clinical disorders
CC   (particularly those involving acute and chronic pain or inflammation)
CC   and defects or alterations in receptor structure, expression or
CC   function.
XX
SQ   Sequence 2380 BP; 491 A; 698 C; 678 G; 513 T; 0 other;


  Query Match             84.7%;  Score 2378.4;  DB 20;  Length 2380;
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Best Local Similarity 100.0%; Pred. No. 0;
Matches 2379; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy    403 ttagatggaggccaagaagatggctctgaggcggacagaggaaagctggattttgggagc 462
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Qy    943 ggccgcttcttccagaagggccaagggacttgcttttatttcggtgagctacccctctct 1002
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Qy   1003 ttggccgcttgcaccaagcagtgggatgtggtaagctacctcctggagaacccacaccag 1062
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RESULT 8
AAZ07114
ID AAZ07114 standard; cDNA; 2351 BP.
XX
AC AAZ07114;
XX
DT 08-OCT-1999 (first entry)
XX
DE Human vanilloid receptor homologue VANILREP2 encoding cDNA.
XX
KW Human; vanilloid receptor homologue; VANILREP2; polymorphic variant;
KW PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative;
KW rheumatoid arthritis; neuralgia; algesia; nerve injury; ischaemia;
KW neurodegeneration; stroke; incontinence; inflammatory disorder; ss.
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FH Key Location/Qualifiers
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FT /note= "vanilloid receptor homologue"
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PF 25-JAN-1999; 99WO-EP00420.
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PR 20-JAN-1999; 99GB-0001209.
PR 27-JAN-1998; 98EP-0300549.
PR 26-OCT-1998; 98GB-0023421.
XX
PA (SMIK) SMITHKLINE BEECHAM PLC.
XX
PI Davis JB, Duckworth DM, Hayes PD;
XX
DR WPI; 1999-479049/40.
DR P-PSDB; AAY29469.
XX
PT New human vanilloid receptor homologues (VANILREP2)
XX
PS Claim 9; Page 29-30; 47pp; English.
XX
CC The present sequence encodes a human vanilloid receptor homologue,
CC designated VANILREP2. VANILREP2 can be used to diagnose disease or
CC susceptibility to disease related to expression or activity of
CC VANILREP2 polypeptides. VANILREP2 may be used to treat diseases
CC including pain, (for example chronic, neuropathic, postoperative,
CC rheumatoid arthritic), neuralgia, algesia, nerve injury, ischaemia,
CC neurodegeneration, stroke, incontinence, and inflammatory disorders.
XX
SQ Sequence 2351 BP; 486 A; 684 C; 676 G; 505 T; 0 other;

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  Best Local Similarity  99.9%;  Pred. No. 0;
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RESULT 9
AAZ07116
ID AAZ07116 standard; cDNA; 2348 BP.
XX
AC AAZ07116;
XX
DT 08-OCT-1999 (first entry)
XX
DE Human vanilloid receptor homologue VANILREP2 polymorphic variant PVP-1.
XX
KW Human; vanilloid receptor homologue; VANILREP2; polymorphic variant;
KW PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative;
KW rheumatoid arthritis; neuralgia; algesia; nerve injury; ischaemia;
KW neurodegeneration; stroke; incontinence; inflammatory disorder; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 5..2296
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FT /product= "VANILREP2 polymorphic variant PVP-1"
FT /note= "vanilloid receptor homologue"
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PN WO9937765-A1.
XX
PD 29-JUL-1999.
XX
PF 25-JAN-1999; 99WO-EP00420.
XX
PR 20-JAN-1999; 99GB-0001209.
PR 27-JAN-1998; 98EP-0300549.
PR 26-OCT-1998; 98GB-0023421.
XX
PA (SMIK) SMITHKLINE BEECHAM PLC.
XX
PI Davis JB, Duckworth DM, Hayes PD;
XX
DR WPI; 1999-479049/40.
DR P-PSDB; AAY29471.
XX
PT New human vanilloid receptor homologues (VANILREP2)
XX
PS Claim 9; Page 34-35; 47pp; English.
XX
CC The present sequence encodes a human vanilloid receptor homologue
CC VANILREP2 polymorphic variant PVP-1. VANILREP2 can be used to diagnose
CC disease or susceptibility to disease related to expression or activity
CC of VANILREP2 polypeptides. VANILREP2 may be used to treat diseases
CC including pain, (for example chronic, neuropathic, postoperative,
CC rheumatoid arthritic), neuralgia, algesia, nerve injury, ischaemia,
CC neurodegeneration, stroke, incontinence, and inflammatory disorders.
XX
SQ Sequence 2348 BP; 487 A; 683 C; 673 G; 505 T; 0 other;

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Qy     417 agaagatggctctgaggcggacagaggaaagctggattttgggagcgggctgcctcccat 476
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Qy     477 ggagtcacagttccagggcgaggaccggaaattcgcccctcagataagagtcaacctcaa 536
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Qy     537 ctaccgaaagggaacaggtgccagtcagccggatccaaaccgatttgaccgagatcggct 596
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Qy     597 cttcaatgcggtctcccggggtgtccccgaggatctggctggacttccagagtacctgag 656
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Qy     657 caagaccagcaagtacctcaccgactcggaatacacagagggctccacaggtaagacgtg 716
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Qy     717 cctgatgaaggctgtgctgaaccttaaggacggagtcaatgcctgcattctgccactgct 776
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Qy     777 gcagatcgacagggactctggcaatcctcagcccctggtaaatgcccagtgcacagatga 836
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Qy     837 ctattaccgaggccacagcgctctgcacatcgccattgagaagaggagtctgcagtgtgt 896
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Qy     897 gaagctcctggtggagaatggggccaatgtgcatgcccgggcctgcggccgcttcttcca 956
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Qy     957 gaagggccaagggacttgcttttatttcggtgagctacccctctctttggccgcttgcac 1016
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Qy    1017 caagcagtgggatgtggtaagctacctcctggagaacccacaccagcccgccagcctgca 1076
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Db     661 caagcagtgggatgtggtaagctacctcctggagaacccacaccagcccgccagcctgca 720

Qy    1077 ggccactgactcccagggcaacacagtcctgcatgccctagtgatgatctcggacaactc 1136
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Qy    1137 agctgagaacattgcactggtgaccagcatgtatgatgggctcctccaagctggggcccg 1196
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Qy    1197 cctctgccctaccgtgcagcttgaggacatccgcaacctgcaggatctcacgcctctgaa 1256
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Qy    1257 gctggccgccaaggagggcaagatcgagattttcaggcacatcctgcagcgggagttttc 1316
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Qy    1317 aggactgagccacctttcccgaaagttcaccgagtggtgctatgggcctgtccgggtgtc 1376
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Qy    1377 gctgtatgacctggcttctgtggacagctgtgaggagaaactcagtgctggagatcattgc 1436
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Qy    1437 ctttcattgcaagagcccgcaccgacaccgaatggtcgttttggagcccctgaacaaact 1496
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Qy    1497 gctgcaggcgaaatgggatctgctcatccccaagttcttcttaaacttcctgtgtaatct 1556
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Qy    1557 gatctacatgttcatcttcaccgctgttgcctaccatcagcctaccctgaagaagcaggc 1616
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Qy    1617 cgcccctcacctgaaagcggaggttggaaactccatgctgctgacgggccacatccttat 1676
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Qy    2037 ggcttggcgccccgaagctcctacaggccccaatgccacagagtcagtgcagcccatgga 2096
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Qy    2277 catgctcatcgccctcatgagcgagaccgtcaacagtgtcgccactgacagctggagcat 2336
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Qy    2577 ggcttcccctcccaaggaggatgaggatggtgcctctgaggaaaactatgtgcccgtcca 2636
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy    2697 tctttccaacc 2707
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Db    2338 tctttccaacc 2348
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RESULT  10
AAX87478
ID   AAX87478 standard; cDNA; 2736 BP.
XX
AC   AAX87478;
XX
DT   08-OCT-1999  (first entry)
XX
DE   Rat vanilloid receptor-related polypeptide 1 (VRRP-1) cDNA.
XX
KW   Vanilloid receptor-related polypeptide 1; VRRP-1; VR2;
KW   capsaicin receptor; VR1; rat; vanilloid; analgesic; pain;
KW   inflammation; therapy; diagnosis; ss.
XX
OS   Rattus rattus.
XX
FH   Key             Location/Qualifiers
FT   CDS             330..2615
FT                   /*tag=  a
XX
PN   WO9937675-A1.
XX
PD   29-JUL-1999.
XX
PF   22-JAN-1999;   99WO-US01418.
XX
PR   22-JAN-1998;   98US-0072151.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Brake AJ,  Caterina M,  Julius DJ;
XX
DR   WPI; 1999-469113/39.
DR   P-PSDB; AAY06556.
XX
PT   New isolated capsaicin receptor polypeptide and related nucleic acid
PT   - useful for detecting vanilloid compounds, identifying modulators,
PT   and in diagnosis or treatment of e.g. pain and inflammation
XX
PS   Claim 8; Page 80-81; 120pp; English.
XX
CC   This is the nucleotide sequence of cDNA coding for rat vanilloid
CC   receptor-related polypeptide 1 (VRRP-1 or VR2).  The cDNA was
CC   isolated from a brain cDNA library.  VRRP-1 (AAY06556) is an example
CC   of a capsaicin receptor-related polypeptide of the invention.  It
CC   is not activated by capsaicin or heat, but may interact with the
CC   novel capsaicin receptor VR1 (see AAY06555).  The invention provides
CC   vanilloid receptor polypeptides and polynucleotides, including
CC   capsaicin receptor-related polypeptides and polynucleotides, as well
CC   as expression vectors, host cells and transgenic animals.  It also
CC   provides a method of using such receptors to identify vanilloid
CC   compounds in natural products or to screen candidate compounds that
CC   modulate capsaicin receptor function for use as analgesics (vanilloid
CC   analogues, therapeutic antibodies, antisense oligonucleotides,
CC   capsaicin receptor-encoding polynucleotides for gene therapy),
CC   flavour-enhancing agents, etc.  Capsaicin receptor-related
CC   polypeptides and specific antibodies can also be used for the
CC   diagnosis and treatment of human disease and pain.  Polynucleotides
CC   can be used as probes to determine the structure, function, location
CC   and expression of capsaicin receptor, receptor subtypes and capsaicin
CC   receptor-related polypeptides in mammals (including humans) and to
CC   investigate associations between disease states or clinical disorders
CC   (particularly those involving acute and chronic pain or inflammation)
CC   and defects or alterations in receptor structure, expression or
CC   function.
XX
SQ   Sequence 2736 BP; 615 A; 780 C; 728 G; 613 T; 0 other;
```

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  Matches 2016;  Conservative    0;  Mismatches  498;  Indels   73;  Gaps   10;

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Qy     282 gctgggaggaagacaggacccttgacatctccatctgcacagaggtcctggctggaccga 341
           |         ||| |||| |||| ||||||||||||  ||||||||    ||||  |  ||
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Qy     462 cgggctgcctcccatggagtcacagttccagggcgaggaccggaaattcgcccctcagat 521
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Qy     687 atacacagagggctccacaggtaagacgtgcctgatgaaggctgtgctgaaccttaagga 746
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Qy     747 cggagtcaatgcctgcattctgccactgctgcagatcgacagggactctggcaatcctca 806
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Qy     807 gcccctggtaaatgcccagtgcacagatgactattaccgaggccacagcgctctgcacat 866
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Qy     927 gcatgcccgggcctgcggccgcttcttccagaagggccaagggacttgcttttatttcgg 986
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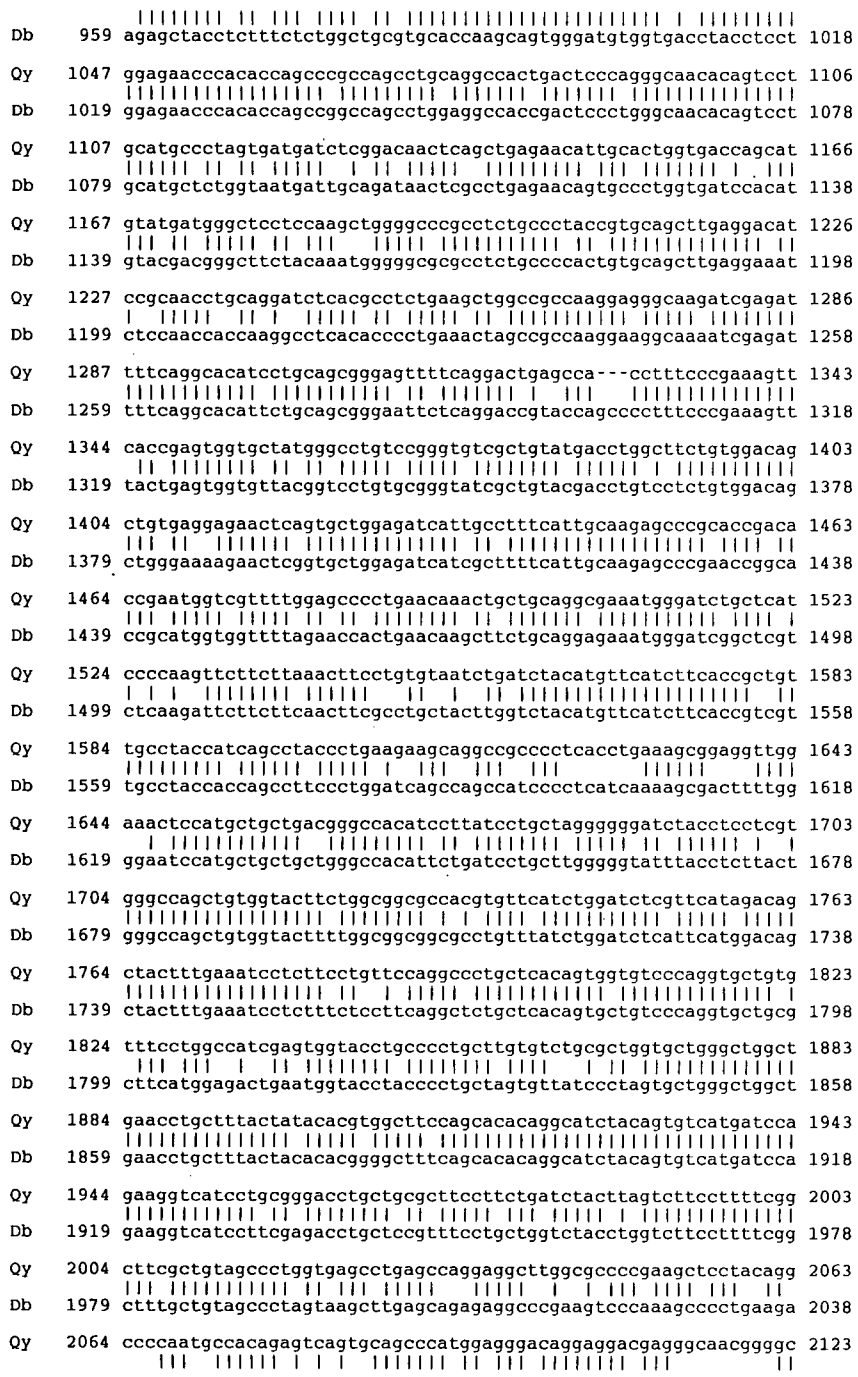

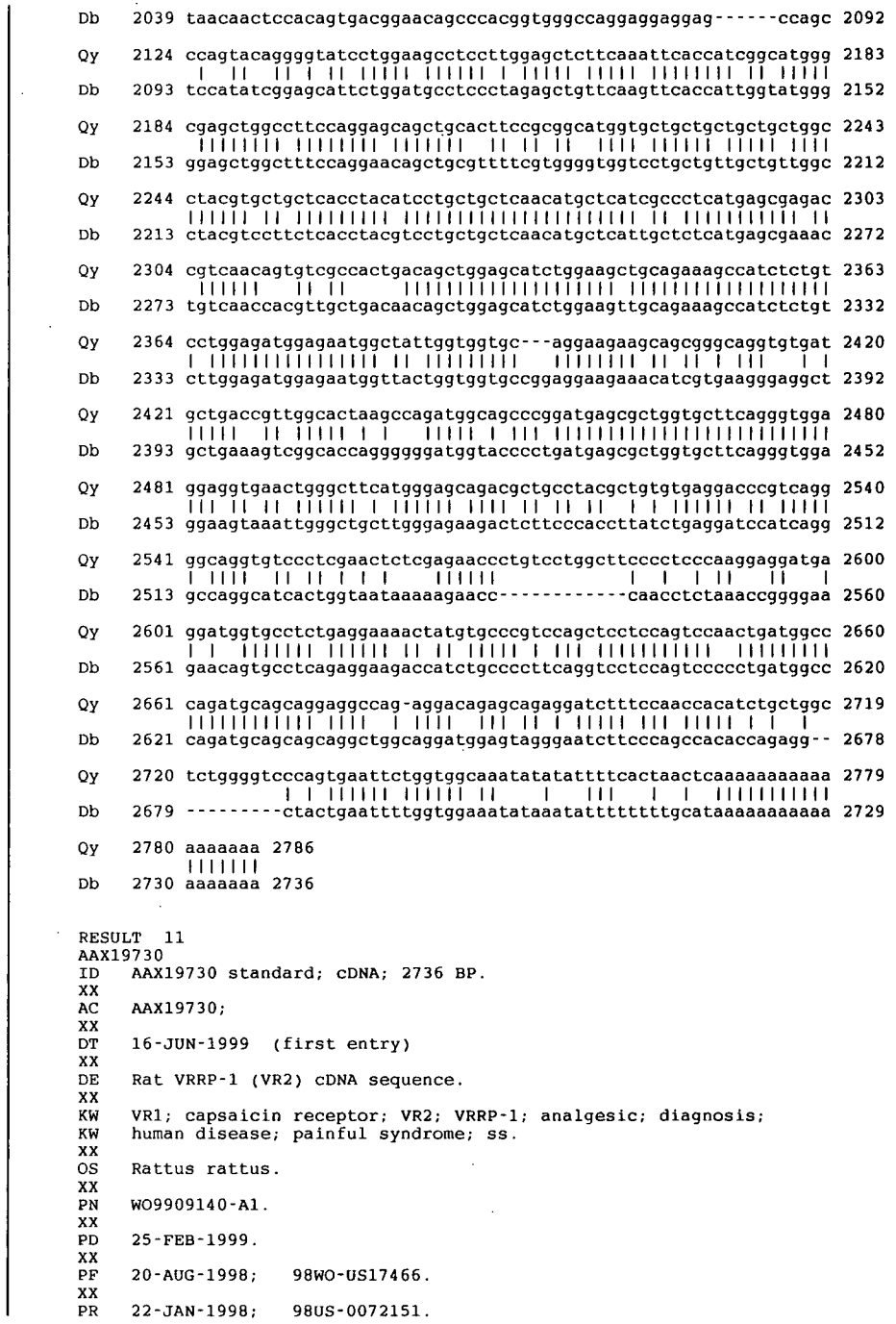

RESULT 11
AAX19730
ID AAX19730 standard; cDNA; 2736 BP.
XX
AC AAX19730;
XX
DT 16-JUN-1999 (first entry)
XX
DE Rat VRRP-1 (VR2) cDNA sequence.
XX
KW VR1; capsaicin receptor; VR2; VRRP-1; analgesic; diagnosis;
KW human disease; painful syndrome; ss.
XX
OS Rattus rattus.
XX
PN WO9909140-A1.
XX
PD 25-FEB-1999.
XX
PF 20-AUG-1998; 98WO-US17466.
XX
PR 22-JAN-1998; 98US-0072151.

PR 20-AUG-1997; 97US-0915461.
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PA (REGC) UNIV CALIFORNIA.
XX
PI Brake A, Caterina M, Julius DJ;
XX
DR WPI; 1999-181023/15.
DR P-PSDB; AAW99790.
XX
PT New capsaicin receptor polypeptide - useful for screening or
PT characterising capsaicin receptor-binding compounds
XX
PS Claim 8; Page 77; 99pp; English.
XX
CC The present sequence encodes an isolated capsaicin receptor polypeptide
CC (I). Capsaicin polypeptides are useful for identifying binding compounds
CC which affect cellular responses. Preferably this is for identifying a
CC compound that binds (I) and affects a cellular response associated with
CC capsaicin biological activity (e.g. intracellular calcium flux). The
CC polypeptides and host cells are useful for detecting a vanilloid
CC compound (an essential structural component of capsaicin) from natural
CC products by detecting an alteration of intracellular response associated
CC with capsaicin receptor activity, preferably an alteration of
CC intracellular calcium levels, and are useful for screening for compounds
CC for use in analgesics. Capsaicin receptor polypeptides and antibodies
CC are useful for diagnosis and treatment of human diseases and painful
CC syndromes. The transgenic mammals can be used to screen for capsaicin
CC receptor antagonists and agonists. Prior art methods for screening or
CC characterising new capsaicin receptor-binding compounds relied on assays
CC using sensory neurons in culture or in intact animals. The new
CC polypeptides provide a more sensitive screen.
XX
SQ Sequence 2736 BP; 615 A; 780 C; 728 G; 613 T; 0 other;

Query Match 55.0%; Score 1544.2; DB 20; Length 2736;
Best Local Similarity 77.9%; Pred. No. 0;
Matches 2016; Conservative 0; Mismatches 498; Indels 73; Gaps 10;

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Qy    222 gcagccgccacgccctggcctcagcctgcggggctccagtcaggccaacaccgacgcgca 281
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Db    201 gccgccgctacaccttggcttcagcctgcggggtcccagccaggcctgcccctgcggtat 260

Qy    282 gctgggaggaagacaggacccttgacatctccatctgcacagaggtcctggctggaccga 341
          |         ||| |||| |||| ||||||||||||  ||||||||    |||| |  ||
Db    261 g---------agagaggaaccttaacatctccatctctacagaggtttcagctgtaagga 311

Qy    342 gcagcctcctcctcctaggatgacctcaccctccagctctccagttttcaggttggagac 401
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Qy    402 attagatggaggccaagaagatggctctgaggcggacagaggaaagctggattttgggag 461
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Db    371 ttccgatggagatgaagagggcaatgctgaggtgaacaaggggaagcagga--------- 421

Qy    462 cgggctgcctcccatggagtcacagttccagggcgaggaccggaaattcgcccctcagat 521
            | ||| ||||||||||||||  |||||| | ||||||||||| | | ||||||||||
Db    422 ---accgcccccccatggagtcaccattccagagggaggaccggaattcctcccctcagat 478

Qy    522 aagagtcaacctcaactaccgaaaggga--------------acaggtgccagtcagcc 566
          | ||| ||||||||||  |  |||| ||                | | | |||| ||||
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Qy    567 ggatccaaaccgatttgaccgagatcggctcttcaatgcggtctcccggggtgtccccga 626
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Qy    627 ggatctggctggacttccagagtacctgagcaagaccagcaagtacctcaccgactcgga 686
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Qy    687 atacacagagggctccacaggtaagacgtgcctgatgaaggctgtgctgaaccttaagga 746
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Qy    807 gcccctggtaaatgcccagtgcacagatgactattaccgaggccacagcgctctgcacat 866
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Qy    867 cgccattgagaagaggagtctgcagtgtgtgaagctcctggtggagaatggggccaatgt 926
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Qy    927 gcatgcccgggcctgcggccgcttcttccagaagggccaagggacttgcttttatttcgg 986
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Qy    987 tgagctacccctctctttggccgcttgcaccaagcagtgggatgtggtaagctacctcct 1046
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Qy   1047 ggagaacccacaccagcccgccagcctgcaggccactgactcccagggcaacacagtcct 1106
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Qy   1107 gcatgccctagtgatgatctcggacaactcagctgagaacattgcactggtgaccagcat 1166
          |||||| || || |||||  | || |||||  |||||||||  ||| |||||||  |  |||
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Qy   1167 gtatgatgggctcctccaagctggggcccgcctctgccctaccgtgcagcttgaggacat 1226
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Qy   1227 ccgcaacctgcaggatctcacgcctctgaagctggccgccaaggagggcaagatcgagat 1286
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Qy   1404 ctgtgaggagaactcagtgctggagatcattgcctttcattgcaagagcccgcaccgaca 1463
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Qy   1464 ccgaatggtcgttttggagcccctgaacaaactgctgcaggcgaaatgggatctgctcat 1523
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Qy   1524 ccccaagttcttcttaaacttcctgtgtaatctgatctacatgttcatcttcaccgctgt 1583
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Qy   1584 tgcctaccatcagcctaccctgaagaagcaggccgcccctcacctgaaagcggaggttgg 1643
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Qy   1644 aaactccatgctgctgacgggccacatccttatcctgctagggggatctacctcctcgt 1703
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Qy   1704 gggccagctgtggtacttctggcggcgccacgtgttcatctggatctcgttcatagacag 1763
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Qy   1764 ctactttgaaatcctcttcctgttccaggccctgctcacagtggtgtcccaggtgctgtg 1823
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Db   1739 ctactttgaaatcctctttctccttcaggctctgctcacagtgctgtcccaggtgctgcg 1798
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Qy   1824 tttcctggccatcgagtggtacctgcccctgcttgtgtctgcgctggtgctgggctggct 1883
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Qy   1884 gaacctgctttactatacacgtggcttccagcacacaggcatctacagtgtcatgatcca 1943
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Qy   1944 gaaggtcatcctgcgggacctgctgcgcttccttctgatctacttagtcttccttttcgg 2003
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Qy   2004 cttcgctgtagccctggtgagcctgagccaggaggcttggcgccccgaagctcctacagg 2063
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Db   1979 ctttgctgtagccctagtaagcttgagcagagaggcccgaagtcccaaagcccctgaaga 2038

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Db   2039 taacaactccacagtgacggaacagcccacggtgggccaggaggaggag------ccagc 2092

Qy   2124 ccagtacaggggtatcctggaagcctccttggagctcttcaaattcaccatcggcatggg 2183
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Qy   2184 cgagctggccttccaggagcagctgcacttccgcggcatggtgctgctgctgctgctggc 2243
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Qy   2244 ctacgtgctgctcacctacatcctgctgctcaacatgctcatcgccctcatgagcgagac 2303
          |||||| || |||||||||| ||||||||||||||||||||| || ||||||||||| ||
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Qy   2304 cgtcaacagtgtcgccactgacagctggagcatctggaagctgcagaaagccatctctgt 2363
          ||||||   || ||     ||||||||||||||||||| ||||||||||||||||||
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Qy   2364 cctggagatggagaatggctattggtggtgc---aggaagaagcagcgggcaggtgtgat 2420
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Qy   2421 gctgaccgttggcactaagccagatggcagcccggatgagcgctggtgcttcagggtgga 2480
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Qy   2481 ggaggtgaactgggcttcatgggagcagacgctgcctacgctgtgtgaggacccgtcagg 2540
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Qy   2541 ggcaggtgtccctcgaactctcgagaaccctgtcctggcttcccctcccaaggaggatga 2600
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Qy   2661 cagatgcagcaggaggccag-aggacagagcagaggatctttccaaccacatctgctggc 2719
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Qy   2720 tctggggtcccagtgaattctggtggcaaatatatatttttcactaactcaaaaaaaaaaa 2779
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Db   2679 ---------ctactgaattttggtggaaatataaatatttttttttgcataaaaaaaaaaa 2729

Qy   2780 aaaaaaa 2786
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Db   2730 aaaaaaa 2736
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RESULT 12
AAA30256
ID AAA30256 standard; cDNA; 1794 BP.
XX
AC AAA30256;
XX
DT 05-SEP-2000 (first entry)
XX
DE Rat partial VR-2 coding sequence.
XX
KW VR-2; rat; vanilloid receptor; nociceptor; pain signalling;
KW hyperalgesia; musculoskeletal disorder; neuropathic pain;
KW gene therapy; ss.
XX
OS Rattus sp.
XX
FH Key .Location/Qualifiers
FT CDS 2..1666
FT /*tag= a
FT /product= "VR-2"
FT /partial
XX
PN WO200029577-A1.
XX
PD 25-MAY-2000.
XX
PF 12-NOV-1999; 99WO-US26701.
XX
PR 13-NOV-1998; 98US-0108322.
PR 28-DEC-1998; 98US-0114078.
PR 26-FEB-1999; 99US-0258633.
PR 19-OCT-1999; 99US-0421134.
XX
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Curtis RAJ;
XX
DR WPI; 2000-387790/33.
DR P-PSDB; AAY97360.
XX
PT New capsaicin/vanilloid receptor polynucleotides and polypeptides, used
PT to modulate pain signalling mechanisms -
XX
PS Claim 1; Fig 4; 183pp; English.
XX
CC The present sequence is the coding sequence for the rat
CC capsaicin/vanilloid receptor VR-2, which is involved in pain signalling.
CC The sequence was isolated by searching a dorsal root ganglion library for
CC genes encoding novel receptors of the capsaicin/vanilloid family. The
CC human version of this gene is found at chromosome 17p11-12, a region
CC which has been associated with myasthenia gravis, Smith-Magenis syndrome,
CC CORD5, Cone-rod dystrophy, choroidal dystrophy, central areolar and
CC retinal cone dystrophy, and it is possible that the human protein may be
CC used to treat or diagnose these disorders. In addition, the human gene,
CC protein and its antibodies can be used to diagnose and treat
CC hyperalgesia, inflammation, infection, ischaemia, joint pain, tooth pain,
CC headaches, pain associated with surgery or neuropathic pain, possibly via
CC the use of gene therapy.
XX
SQ Sequence 1794 BP; 396 A; 499 C; 474 G; 425 T; 0 other;

Query Match 39.2%; Score 1102.4; DB 21; Length 1794;
Best Local Similarity 78.5%; Pred. No. 3e-224;
Matches 1409; Conservative 0; Mismatches 351; Indels 36; Gaps 6;

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Qy   1055 cacaccagcccgccagcctgcaggccactgactcccagggcaacacagtcctgcatgccc 1114
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Qy   1115 tagtgatgatctcggacaactcagctgagaacattgcactggtgaccagcatgtatgatg 1174
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Qy   1412 agaactcagtgctggagatcattgcctttcattgcaagagcccgcaccgacaccgaatgg 1471
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Qy   1472 tcgttttggagcccctgaacaaactgctgcaggcgaaatgggatctgctcatccccaagt 1531
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Qy   1532 tcttcttaaacttcctgtgtaatctgatctacatgttcatcttcaccgctgttgcctacc 1591
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Qy   1592 atcagcctaccctgaagaagcaggccgcccctcacctgaaagcggaggttggaaactcca 1651
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          |||||||||| ||  | ||||| |||||||||||| |||||||||||||| | ||| |||
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Qy   1832 ccatcgagtggtacctgcccctgcttgtgtctgcgctggtgctgggctggctgaacctgc 1891
            |  || |||||||| |||||||| ||||   | || ||||||||||||||||||||
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Qy   1892 tttactatacacgtggcttccagcacacaggcatctacagtgtcatgatccagaaggtca 1951
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Qy   1952 tcctgcgggacctgctgcgcttccttctgatctacttagtcttccttttcggcttcgctg 2011
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Qy   2012 tagccctggtgagcctgagccaggaggcttggcgccccgaagctcctacaggccccaatg 2071
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Qy   2072 ccacagagtcagtgcagcccatggagggacaggaggacgagggcaacggggcccagtaca 2131
          |||||| | | |  ||||||| || ||| |||||||| |||         || |  ||
Db   1098 ccacagtgacggaacagcccacggtgggccaggaggaggag------ccagctccatatc 1151

Qy   2132 ggggtatcctggaagcctccttggagctcttcaaattcaccatcggcatgggcgagctgg 2191
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Qy   2192 ccttccaggagcagctgcacttccgcggcatggtgctgctgctgctgctggcctacgtgc 2251
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Qy   2252 tgctcacctacatcctgctgctcaacatgctcatcgccctcatgagcgagaccgtcaaca 2311
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Qy   2312 gtgtcgccactgacagctggagcatctggaagctgcagaaagccatctctgtcctggaga 2371
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Db   1332 acgttgctgacaacagctggagcatctggaagttgcagaaagccatctctgtcttggaga 1391

Qy   2372 tggagaatggctattggtggtgc---aggaagaagcagcgggcaggtgtgatgctgaccg 2428
          ||||||||||| || |||||||||   |||||||| || || | |||   | ||||||  |
Db   1392 tggagaatggttactggtggtgccggaggaagaaacatcgtgaagggaggctgctgaaag 1451

Qy   2429 ttggcactaagccagatggcagcccggatgagcgctggtgcttcagggtggaggaggtga 2488
          | |||||| | |   ||||| | ||| ||||||||||||||||||||||||||||| || |
Db   1452 tcggcaccaggggggatggtacccctgatgagcgctggtgcttcagggtggaggaagtaa 1511

Qy   2489 actgggcttcatgggagcagacgctgcctacgctgtgtgaggacccgtcaggggcaggtg 2548
          | |||||| | |||||| |||| || || ||  | | |||||| || |||||| ||||
Db   1512 attgggctgcttgggagaagactcttcccaccttatctgaggatccatcagggccaggca 1571

Qy   2549 tccctcgaactctcgagaaccctgtcctggcttcccctcccaaggaggatgaggatggtg 2608
          || || | | |    ||||||              |  |  | ||   ||   || |  |||
Db   1572 tcactggtaataaaaagaacc-----------caacctctaaaccggggaagaacagtg 1619

Qy   2609 cctctgaggaaaactatgtgcccgtccagctcctccagtccaactgatggcccagatgca 2668
          |||| |||||| || || ||||| | ||| ||||||||||  |||||||||||||||||
Db   1620 cctcagaggaagaccatctgccccttcaggtcctccagtccccctgatggcccagatgca 1679

Qy   2669 gcaggaggccag-aggacagagcagaggatctttccaaccacatctgctggctctggggt 2727
          |||| ||||  | ||||  ||| || | ||||| ||| ||||| | |  |
Db   1680 gcagcaggctggcaggatggagtagggaatcttcccagccacaccagagg---------- 1729

Qy   2728 cccagtgaattctggtggcaaatatatattttcactaactcaaaaaaaaaaaaaaa 2783
           | | |||||| |||||| ||    |   |||   |  |  ||||||||||||||||
Db   1730 -ctactgaattttggtggaaatataaatatttttttttgcataaaaaaaaaaaaaaa 1784
```

RESULT 13
AAA30255
ID AAA30255 standard; cDNA; 1489 BP.
XX
AC AAA30255;
XX
DT 05-SEP-2000 (first entry)
XX
DE Human VR-2 (alternate form) coding sequence.
XX
KW VR-2; human; vanilloid receptor; nociceptor; pain signalling;
KW hyperalgesia; musculoskeletal disorder; neuropathic pain;
KW chromosome 17p11-12; gene therapy; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 3..1313
FT /*tag= a
FT /product= "VR-2 alternate form"
FT /partial
XX
PN WO200029577-A1.
XX
PD 25-MAY-2000.
XX
PF 12-NOV-1999; 99WO-US26701.
XX
PR 13-NOV-1998; 98US-0108322.
PR 28-DEC-1998; 98US-0114078.
PR 26-FEB-1999; 99US-0258633.
PR 19-OCT-1999; 99US-0421134.
XX
PA (MILL-) MILLENNIUM PHARM INC.
XX

PI Curtis RAJ;
XX
DR WPI; 2000-387790/33.
DR P-PSDB; AAY97359.
XX
PT New capsaicin/vanilloid receptor polynucleotides and polypeptides, used
PT to modulate pain signalling mechanisms -
XX
PS Claim 1; Fig 3; 183pp; English.
XX
CC The present sequence is the coding sequence for an alternate form of
CC human capsaicin/vanilloid receptor VR-2, which is involved in pain
CC signalling. The sequence was isolated by searching a heart library for
CC genes encoding novel receptors of the capsaicin/vanilloid family, and has
CC been shown to be located at chromosome 17p11-12. This region has been
CC associated with myasthenia gravis, Smith-Magenis syndrome, CORD5,
CC Cone-rod dystrophy, choroidal dystrophy, central areolar and retinal
CC cone dystrophy, and it is possible that the protein may be used to treat
CC or diagnose these disorders. In addition, the gene, protein and its
CC antibodies can be used to diagnose and treat hyperalgesia, inflammation,
CC infection, ischaemia, joint pain, tooth pain, headaches, pain associated
CC with surgery or neuropathic pain, possibly via the use of gene therapy.
XX
SQ Sequence 1489 BP; 332 A; 415 C; 411 G; 331 T; 0 other;

Query Match 37.6%; Score 1055; DB 21; Length 1489;
Best Local Similarity 78.5%; Pred. No. 3e-214;
Matches 1467; Conservative 0; Mismatches 0; Indels 402; Gaps 1;

```
Qy    941 gcggccgcttcttccagaagggccaagggacttgcttttatttcggtgagctacccctct 1000
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 gcggccgcttcttccagaagggccaagggacttgcttttatttcggtgagctacccctct 60

Qy   1001 ctttggccgcttgcaccaagcagtgggatgtggtaagctacctcctggagaacccacacc 1060
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 ctttggccgcttgcaccaagcagtgggatgtggtaagctacctcctggagaacccacacc 120

Qy   1061 agcccgccagcctgcaggccactgactcccagggcaacacagtcctgcatgccctagtga 1120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 agcccgccagcctgcaggccactgactcccagggcaacacagtcctgcatgccctagtga 180

Qy   1121 tgatctcggacaactcagctgagaacattgcactggtgaccagcatgtatgatgggctcc 1180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 tgatctcggacaactcagctgagaacattgcactggtgaccagcatgtatgatgggctcc 240

Qy   1181 tccaagctggggcccgcctctgccctaccgtgcagcttgaggacatccgcaacctgcagg 1240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 tccaagctggggcccgcctctgccctaccgtgcagcttgaggacatccgcaacctgcagg 300

Qy   1241 atctcacgcctctgaagctggccgccaaggagggcaagatcgagattttcaggcacatcc 1300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 atctcacgcctctgaagctggccgccaaggagggcaagatcgagattttcaggcacatcc 360

Qy   1301 tgcagcgggagttttcaggactgagccacctttcccgaaagttcaccgagtggtgctatg 1360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    361 tgcagcgggagttttcaggactgagccacctttcccgaaagttcaccgagtggtgctatg 420

Qy   1361 ggcctgtccgggtgtcgctgtatgacctggcttctgtggacagctgtgaggagaactcag 1420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    421 ggcctgtccgggtgtcgctgtatgacctggcttctgtggacagctgtgaggagaactcag 480

Qy   1421 tgctggagatcattgcctttcattgcaagagcccgcaccgacaccgaatggtcgttttgg 1480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    481 tgctggagatcattgcctttcattgcaagagcccgcaccgacaccgaatggtcgttttgg 540

Qy   1481 agcccctgaacaaactgctgcaggcgaaatgggatctgctcatccccaagttcttcttaa 1540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    541 agcccctgaacaaactgctgcaggcgaaatgggatctgctcatccccaagttcttcttaa 600

Qy   1541 acttcctgtgtaatctgatctacatgttcatcttcaccgctgttgcctaccatcagccta 1600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    601 acttcctgtgtaatctgatctacatgttcatcttcaccgctgttgcctaccatcagccta 660

Qy   1601 ccctgaagaagcaggccgcccctcacctgaaagcggaggttggaaactccatgctgctga 1660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    661 ccctgaagaagcaggccgcccctcacctgaaagcggaggttggaaactccatgctgctga 720

Qy   1661 cgggccacatccttatcctgctaggggggatctacctcctcgtgggccagctgtggtact 1720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    721 cgggccacatccttatcctgctaggggggatctacctcctcgtgggccagctgtggtact 780

Qy   1721 tctggcggcgccacgtgttcatctggatctcgttcatagacagctactttgaaatcctct 1780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    781 tctggcggcgccacgtgttcatctggatctcgttcatagacagctactttgaaatcctct 840

Qy   1781 tcctgttccaggccctgctcacagtggtgtcccaggtgctgtgtttcctggccatcgagt 1840
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    841 tcctgttccaggccctgctcacagtggtgtcccaggtgctgtgtttcctggccatcgagt 900

Qy   1841 ggtacctgcccctgcttgtgtctgcgctggtgctgggctggctgaacctgctttactata 1900
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    901 ggtacctgcccctgcttgtgtctgcgctggtgctgggctggctgaacctgctttactata 960

Qy   1901 cacgtggcttccagcacacaggcatctacagtgtcatgatccagaaggtcatcctgcggg 1960
          ||||||||||||||||||||||||||||||||||||||||||
Db    961 cacgtggcttccagcacacaggcatctacagtgtcatgatccaga---------------- 1005

Qy   1961 acctgctgcgcttccttctgatctacttagtcttccttttcggcttcgctgtagccctgg 2020

Db   1006 ---------------------------------------------------------- 1005

Qy   2021 tgagcctgagccaggaggcttggcgccccgaagctcctacaggccccaatgccacagagt 2080

Db   1006 ---------------------------------------------------------- 1005

Qy   2081 cagtgcagcccatggagggacaggaggacgagggcaacggggcccagtacaggggtatcc 2140

Db   1006 ---------------------------------------------------------- 1005

Qy   2141 tggaagcctccttggagctcttcaaattcaccatcggcatgggcgagctggccttccagg 2200

Db   1006 ---------------------------------------------------------- 1005

Qy   2201 agcagctgcacttccgcggcatggtgctgctgctgctgctggcctacgtgctgctcacct 2260

Db   1006 ---------------------------------------------------------- 1005

Qy   2261 acatcctgctgctcaacatgctcatcgccctcatgagcgagaccgtcaacagtgtcgcca 2320

Db   1006 ---------------------------------------------------------- 1005

Qy   2321 ctgacagctggagcatctggaagctgcagaaagccatctctgtcctggagatggagaatg 2380
                                        ||||||||||||||||||||||||||||||||
Db   1006 ---------------------------agaaagccatctctgtcctggagatggagaatg 1038

Qy   2381 gctattggtggtgcaggaagaagcagcgggcaggtgtgatgctgaccgttggcactaagc 2440
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1039 gctattggtggtgcaggaagaagcagcgggcaggtgtgatgctgaccgttggcactaagc 1098

Qy   2441 cagatggcagcccggatgagcgctggtgcttcagggtggaggaggtgaactgggcttcat 2500
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1099 cagatggcagcccggatgagcgctggtgcttcagggtggaggaggtgaactgggcttcat 1158

Qy   2501 gggagcagacgctgcctacgctgtgtgaggacccgtcaggggcaggtgtccctcgaactc 2560
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1159 gggagcagacgctgcctacgctgtgtgaggacccgtcaggggcaggtgtccctcgaactc 1218

Qy   2561 tcgagaaccctgtcctggcttcccctcccaaggaggatgaggatggtgcctctgaggaaa 2620
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1219 tcgagaaccctgtcctggcttcccctcccaaggaggatgaggatggtgcctctgaggaaa 1278

Qy   2621 actatgtgcccgtccagctcctccagtccaactgatggcccagatgcagcaggaggccag 2680
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1279 actatgtgcccgtccagctcctccagtccaactgatggcccagatgcagcaggaggccag 1338
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Qy   2681 aggacagagcagaggatctttccaaccacatctgctggctctggggtcccagtgaattct 2740
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1339 aggacagagcagaggatctttccaaccacatctgctggctctggggtcccagtgaattct 1398

Qy   2741 ggtggcaaatatatattttcactaactcaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa 2800
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1399 ggtggcaaatatatattttcactaactcaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa 1458

Qy   2801 aaaaaaaaa 2809
          |||||||||
Db   1459 aaaaaaaaa 1467


RESULT  14
AAZ07115
ID   AAZ07115 standard; cDNA; 885 BP.
XX
AC   AAZ07115;
XX
DT   08-OCT-1999  (first entry)
XX
DE   Human vanilloid receptor homologue VANILREP2 cDNA derived from ESTs.
XX
KW   Human; vanilloid receptor homologue; VANILREP2; polymorphic variant;
KW   PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative;
KW   rheumatoid arthritis; neuralgia; algesia; nerve injury; ischaemia;
KW   neurodegeneration; stroke; incontinence; inflammatory disorder; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             22..673
FT                   /*tag=  a
FT                   /product= "VANILREP2"
FT                   /transl_except= (pos:133..135;aa:Xaa)
FT                   /note= "Xaa= unspecified"
FT                   /transl_except= (pos:139..141;aa:Xaa)
FT                   /note= "Xaa= unspecified"
FT                   /transl_except= (pos:148..150;aa:Lys)
FT                   /transl_except= (pos:217..220;aa:Asp)
FT                   /note= "this codon has an apparent 1 nucleotide
FT                         insertion which alters the reading frame"
FT                   /transl_except= (pos:470..472;aa:Tyr)
FT                   /note= "no stop codon given"
XX
PN   WO9937765-A1.
XX
PD   29-JUL-1999.
XX
PF   25-JAN-1999;   99WO-EP00420.
XX
PR   20-JAN-1999;   99GB-0001209.
PR   27-JAN-1998;   98EP-0300549.
PR   26-OCT-1998;   98GB-0023421.
XX
PA   (SMIK ) SMITHKLINE BEECHAM PLC.
XX
PI   Davis JB,  Duckworth DM,  Hayes PD;
XX
DR   WPI; 1999-479049/40.
DR   P-PSDB; AAY29470.
XX
PT   New human vanilloid receptor homologues (VANILREP2)
XX
PS   Claim 16; Page 33; 47pp; English.
XX
CC   The present sequence encodes a human vanilloid receptor homologue,
CC   designated VANILREP2, derived from EST (expressed sequence
CC   tag) sequences. VANILREP2 can be used to diagnose disease or
CC   susceptibility to disease related to expression or activity of
CC   VANILREP2 polypeptides. VANILREP2 may be used to treat diseases
CC   including pain, (for example chronic, neuropathic, postoperative,
CC   rheumatoid arthritic), neuralgia, algesia, nerve injury, ischaemia,
CC   neurodegeneration, stroke, incontinence, and inflammatory disorders.
XX
SQ   Sequence 885 BP; 184 A; 248 C; 267 G; 182 T; 4 other;


  Query Match             28.1%;  Score 790.4;  DB 20;  Length 885;
  Best Local Similarity   92.3%;  Pred. No. 2.7e-158;
  Matches  879;  Conservative    0;  Mismatches    5;  Indels   68;  Gaps    2;

Qy   1822 tgtttcctggccatcgagtggtacctgcccctgcttgtgtctgcgctggtgctgggctgg 1881
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 tgtttcctggccatcgagtggtacctgcccctgcttgtgtctgcgctggtgctgggctgg 60

Qy   1882 ctgaacctgctttactatacacgtggcttccagcacacaggcatctacagtgtcatgatc 1941
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 ctgaacctgctttactatacacgtggcttccagcacacaggcatctacagtgtcatgatc 120

Qy   1942 cagaaggtcatcctgcgggacctgctgcgcttccttctgatctacttagtcttccttttc 2001
          ||||
Db    121 caga------------------------------------------------------- 124

Qy   2002 ggcttcgctgtagccctggtgagcctgagccaggaggcttggcgccccgaagctcctaca 2061
                    ||||||||||||||||||||||   ||||||||||||||||||||||
Db    125 ----------agccctggtgagcctgagccagga-nnttggcgccccgaagctcctaca 172

Qy   2062 ggccccaatgccacagagtcagtgcagcccatggagggacaggaggacgagggcaacggg 2121
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    173 ggccccaatgccacagagtcagtgcagcccatggagggacaggaggacgagggcaacggg 232

Qy   2122 gcccagtacaggggtatcctggaagcctccttggagctcttcaaattcaccatcggcatg 2181
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    233 gcccagtacaggggtatcctggaagcctccttggagctcttcaaattcaccatcggcatg 292

Qy   2182 ggcgagctggccttccaggagcagctgcacttccgcggcatggtgctgctgctgctgctg 2241
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    293 ggcgagctggccttccaggagcagctgcacttccgcggcatggtgctgctgctgctgctg 352

Qy   2242 gcctacgtgctgctcacctacatcctgctgctcaacatgctcatcgccctcatgagcgag 2301
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    353 gcctacgtgctgctcacctacatcctgctgctcaacatgctcatcgccctcatgagcgag 412

Qy   2302 accgtcaacagtgtcgccactgacagctggagcatctggaagctgcagaaagccatctct 2361
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |||| |
Db    413 accgtcaacagtgtcgccactgacagctggagcatctggaagctgcagaaagcnatctnt 472

Qy   2362 gtcctggagatggagaatggctattggtggtgcaggaagaagcagcgggcaggtgtgatg 2421
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    473 gtcctggagatggagaatggctattggtggtgcaggaagaagcagcgggcaggtgtgatg 532

Qy   2422 ctgaccgttggcactaagccagatggcagcccggatgagcgctggtgcttcagggtggag 2481
          |||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||
Db    533 ctgaccgttggcactaagccagatggcagccccgatgagcgctggtgcttcagggtggag 592

Qy   2482 gaggtgaactgggcttcatgggagcagacgctgcctacgctgtgtgaggacccgtcaggg 2541
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    593 gaggtgaactgggcttcatgggagcagacgctgcctacgctgtgtgaggacccgtcaggg 652

Qy   2542 gcaggtgtccctcgaactctcgagaaccctgtcctggcttcccctcccaaggaggatgag 2601
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    653 gcaggtgtccctcgaactctcgagaaccctgtcctggcttcccctcccaaggaggatgag 712

Qy   2602 gatggtgcctctgaggaaaactatgtgcccgtccagctcctccagtccaactgatggccc 2661
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    713 gatggtgcctctgaggaaaactatgtgcccgtccagctcctccagtccaactgatggccc 772

Qy   2662 agatgcagcaggaggccagaggacagagcagaggatctttccaaccacatctgctggctc 2721
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    773 agatgcagcaggaggccagaggacagagcagaggatctttccaaccacatctgctggctc 832

Qy   2722 tggggtcccagtgaattctggtggcaaatatatatttttcactaactcaaaaa 2773
          |||||||||||||||||||||||||||||||||||||||||||||||||||
Db    833 tggggtcccagtgaattctggtggcaaatatatatttttcactaactcaaaaa 884
```

```
RESULT  15
AAX87501
ID   AAX87501 standard; DNA; 884 BP.
XX
AC   AAX87501;
XX
DT   08-OCT-1999  (first entry)
XX
DE   Human vanilloid receptor-related polypeptide 1 (VRRP-1) cDNA.
XX
KW   Vanilloid receptor-related polypeptide 1; VRRP-1; VR2;
KW   capsaicin receptor; VR1; human; vanilloid; analgesic; pain;
KW   inflammation; therapy; diagnosis; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             3..764
FT                   /*tag=  a
XX
PN   WO9937675-A1.
XX
PD   29-JUL-1999.
XX
PF   22-JAN-1999;   99WO-US01418.
XX
PR   22-JAN-1998;   98US-0072151.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Brake AJ,  Caterina M,  Julius DJ;
XX
DR   WPI; 1999-469113/39.
XX
PT   New isolated capsaicin receptor polypeptide and related nucleic acid
PT   - useful for detecting vanilloid compounds, identifying modulators,
PT   and in diagnosis or treatment of e.g. pain and inflammation
XX
PS   Claim 8; Page 90-91; 120pp; English.
XX
CC   This is the nucleotide sequence of a human vanilloid receptor-
CC   related polypeptide 1 (VRRP-1 or VR2) partial cDNA.  It codes for
CC   the C-terminal region of a claimed VRRP-1 polypeptide (see AAY06560).
CC   VRRP-1 is an example of a capsaicin receptor-related polypeptide of
CC   the invention.  It is not activated by capsaicin or heat, but may
CC   interact with the novel capsaicin receptor VR1 (see AAY06558).  The
CC   invention provides capsaicin receptor and capsaicin receptor-
CC   related polypeptides and polynucleotides, as well as expression
CC   vectors, host cells and transgenic animals.  It also provides a
CC   method of using such receptors to identify vanilloid compounds in
CC   natural products or to screen candidate compounds that modulate
CC   capsaicin receptor function for use as analgesics (vanilloid
CC   analogues, therapeutic antibodies, antisense oligonucleotides,
CC   capsaicin receptor-encoding polynucleotides for gene therapy),
CC   flavour-enhancing agents, etc.  Capsaicin receptor-related
CC   polypeptides and specific antibodies can also be used for the
CC   diagnosis and treatment of human disease and pain.
XX
SQ   Sequence 884 BP; 182 A; 247 C; 267 G; 181 T; 7 other;


  Query Match             28.0%;  Score 787.8;  DB 20;  Length 884;
  Best Local Similarity   91.9%;  Pred. No. 9.8e-158;
  Matches  876;  Conservative    5;  Mismatches    2;  Indels   70;  Gaps    2;

Qy   1822 tgtttcctggccatcgagtggtacctgcccctgcttgtgtctgcgctggtgctgggctgg 1881
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 tgtttcctggccatcgagtggtacctgcccctgcttgtgtctgcgctggtgctgggctgg 60

Qy   1882 ctgaacctgctttactatacacgtggcttccagcacacaggcatctacagtgtcatgatc 1941
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 ctgaacctgctttactatacacgtggcttccagcacacaggcatctacagtgtcatgatc 120

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